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## Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

## Listing of Claims:

1(elected). A computer-based method of generating a quantitative structure activity relationship comprising:

- a) calculating a numerical representation of molecules consisting of n numbers per molecule; and,
- b) estimating a probability distribution that a said molecules is active.
  - 2(elected). A method as recited in claim 1, wherein:
- a) said estimating step is calculated with Bayes Theorem.
  - 3(elected). A method as recited in claim 1, wherein:
- a) said probability distribution of said estimating step comprises n one-dimensional distributions.

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- 4 (withdrawn). A method as recited in claim 1, wherein:
- a) said estimating step is performed by using a means to remove linear correlations between said n numbers per molecule.
  - 5(withdrawn). A method as recited in claim 4, wherein:
- a) said means to remove linear correlations between said n numbers per molecule is a principal components analysis.
  - 6(withdrawn). A method as recited in claim 4, wherein:
- a) said means to remove linear correlations between said n numbers per molecule is a matrix diagonalization.
  - 7 (withdrawn). A method as recited in claim 1, wherein:
- a) said estimating step is performed by using a means to remove dependencies between said n numbers per molecule.
  - 8 (withdrawn). A method as recited in claim 7, wherein:
- a) said means to remove dependencies between said n numbers per molecule is a principal components analysis.

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9(withdrawn). A method as recited in claim 7, wherein:

a) said means to remove dependencies between said n numbers per molecule is a matrix diagonalization.

10 (withdrawn). A method as recited in claim 1, wherein:

a) said estimating step is performed by estimating a distribution over a single number.

11(withdrawn). A method as recited in claim 1, wherein:

a) said estimating step is performed by replacing a single observation with a Gaussian distribution.